REMARKS

The present application relates to hybrid maize plant and seed X1069G. Claims 1-32 are currently pending in the present application. Applicants respectfully request consideration of the following remarks.

Detailed Action

A. Specification

The Examiner has objected to the specification for containing blank lines on page 7 in the last paragraph and page 57. Applicants respectfully submit that the actual ATCC deposit will be delayed until the receipt of notice that the application is otherwise in condition for allowance. While Applicants do not agree that this rejection is appropriate under 37 C.F.R. §§ 1.801-1.809, Applicants will refrain from deposit of Hybrid X1069G until allowable subject matter is indicated. Once such notice is received, an ATCC deposit will be made, and the specification will be amended to contain the accession number of the deposit, the date of the deposit, a description of the deposited biological material sufficient to specifically identify it and to permit examination and the name and address of the depository. The claims (1, 5 and 7) will also be amended to recite the ATCC deposit number. In addition, Applicants submit that at least 2,500 seeds of Variety X1069G will be deposited with the ATCC. In view of this assurance, the rejection under 35 U.S.C. § 112, first paragraph, should be removed (MPEP § 2411.02). Such action is respectfully requested.

B. Claim Objections

The Examiner objects to claims 1, 5, 6, 7, 12 and 16. The Examiner objects to claims 1, 5 and 7 for the ATCC Accession No. being left blank. As stated above, Applicants will amend the claims upon ATCC deposit. The Examiner objects to claim 6 for the use of "A". Applicants have now amended claims 6, 12, 16, 25 and 22 to include --The-- as suggested by the Examiner, thereby alleviating this objection.

The Examiner also objects to claims 12 and 16 for the phrase "A hybrid maize plant". Applicants have now amended these claims to read --The hybrid maize plant-- as suggested by the Examiner, thereby alleviating this objection.

C. Claims

Applicants acknowledge the addition of new claims 33 through 41. The new claims do not add new matter as there is literal support for the claims in the originally filed specification (pages 48-50, specification).

Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 1-32 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Claims 1-32 stand rejected as indefinite in the designation of "X1069G". The Examiner states that this designation does not denote an art recognized designation of a maize plant and hence does not state the metes and bounds of the claimed invention. The Examiner further states that Applicants must provide the appropriate amendment to insert the deposit information at the time of allowance in both the specification and the claims.

Applicants respectfully traverse this rejection. Claims 1-32 are patently distinct because they involve a novel maize seed, plants, plant parts, and methods. Applicants' detailed arguments are set forth infra in the Issues under 102/103 section. Nonetheless, Applicants assert one ordinarily skilled in the art would clearly understand that this designation is drawn to a new and distinct hybrid maize seed with the designation of X1069G and the morphological and physiological traits that are disclosed in the specification. (See Tables 1-4, pgs. 17-43). It is common practice within plant breeding that a new and distinct maize seed is designated with a numerical number such as X1069G which defines the claimed hybrid maize seed which will be deposited under an ATCC accession number. The use of such a designation is a common practice within the art and would be well understood by one skilled in the art to be two distinct and unrelated hybrid maize seeds. In addition, as provided in 37 C.F.R. §§ 1.801-1.809, Applicants wish to reiterate they will refrain from deposit of Hybrid X1069G until allowable subject matter is indicated. Once deposit is completed Applicants will amend claims 1, 5 and 7 accordingly and this rejection will be moot. Therefore, Applicants submit this terminology is not indefinite and reconsideration is respectfully requested.

Claims 5 and 7 stand rejected for the phrase "capable of expressing". Applicant respectfully traverses this rejection. The term is not indefinite and would be understood by one skilled in the art to mean the ability to manifest the morphological and physiological characteristics. In addition, Applicant asserts that plants regenerated from tissue culture may be stunted and have other changes in growth habit, but once the Hybrid X1069G regenerated plant is self-pollinated and the seed is grown under normal growing conditions, the plant will again express the same traits as Hybrid X1069G. Applicant has deleted the term in claim 5, thereby alleviating the rejection. Applicant asserts claim 7 is in condition for allowance.

Claim 6 stands rejected for the phrase "the cells or protoplasts being from a tissue" as it is indefinite because it is unclear what the metes and bounds of "being from" are. Applicants have now amended claim 6 to read --the cells or protoplasts of said cells having been isolated from a tissue--, as suggested by the Examiner thereby, alleviating this rejection.

Claim 8 stands rejected as indefinite because the plant of claim 2 is not male sterile. Applicants have now amended the claim to read --further comprises a genetic factor conferring male sterility--, as suggested by the Examiner, thereby obviating this rejection.

Claims 9, 13, 17, 22, 26 and 30 stand rejected as indefinite because the claims do not set forth any positive method steps leading to the maize plant at line 1 of the claims. Applicants respectfully submit the claims are directed to a method for producing a maize plant wherein the maize plant of claim 2, or its parts, is used as a source of plant breeding material. This method clearly defines a method utilizing the proprietary hybrid X1069G to produce a maize plant. The techniques described in the present application in the "Background of the Invention" (pages 1-7) and "Further Embodiments of the Invention" (pages 44-55) sections clearly define and distinctly claim positive method steps for producing maize plants for small or large scale production. Applicant respectfully requests the Examiner to withdraw this rejection.

Claims 10, 14, 18, 23, 27, and 31 are indefinite for improper antecedent basis. The Examiner states the claims are drawn to a "maize plant breeding program" while the claims to which they depend are drawn to a method. Applicants have amended the claims in accordance to Examiner's suggestion by changing the recitation "maize plant breeding program" in line 1 of claims 10, 14, 18, 23, 27 and 31 with --method--, thus alleviating this rejection.

Claims 11, 15, 19, 24, 28 and 32 are indefinite in their recitation of "excellent yield potential", "good stalk lodging" and "suited.... of the United States", as the Examiner states these terms are relative and do not state the metes and bounds of the claimed invention.

Applicants respectfully traverse this rejection. Each of these claims recites two requirements, first that X1069G be an ancestor of the plant and second, that the claimed plant be "capable of expressing a combination of at least two X1069G traits" selected from a Markush grouping. Applicants note that the Markush listing is directed to "X1069G" traits. Thus, Applicants submit that the recitation of X1069G traits clearly delineates the traits listed as those which are from X1069G or ancestors thereof. The recitation of "X1069G" in front of the term traits clearly indicates that the traits must be originating from X1069G. This is particularly so since the claim also requires that the plant X1069G must be an ancestor of the claimed plant. Applicants further submit that the adjectives used within the claims are not unduly narrative or imprecise as they do clearly characterize and positively recite the degree of expression of the particular traits within the application in Tables 1-4 (pages 18-43). This terminology is well known in the art and commonly used within breeding techniques of hybrid plants. In addition, Applicants assert it is exactly clear what states or geographic areas define these regions and would be understood to one skilled in the art. Applicants respectfully submit that this language is not indefinite and would be understood by one in the art and is the terminology of use within the art. Therefore, Applicants respectfully request reconsideration.

Furthermore, in Georgia-Pacific, the Federal Circuit stated that "...the policy of the patent statute contemplates granting protection to valid inventions, and this policy will be defeated if protection were to be accorded to those patents which were capable of precise definition." Georgia-Pacific Corp. v. U.S. Plywood Corp., 258 F.2d 124, 136, 118 U.S.P.Q. 122 (2nd Cir.). While some decisions have advocated the general statement that "[a]n invention must be capable of accurate definition, and it must be accurately defined, to be patentable, (See United Carbon Co. v. Binney & Smith Co., 1942, 317 U.S. 228, 237, 63 S.Ct. 165, 170, 87 L.Ed. 232), the Federal Court has stated that "such general statements, however, must be viewed in the context of circumstances. Objectionable indefiniteness must be determined by the facts in each case, not by reference to an abstract rule." Georgia-Pacific at 136. "Patentable inventions cannot always be described in terms of exact measurements, symbols and formulae, and Applicants

necessarily must use the meager tools provided by language, tools which admittedly lack exactitude and precision. If the claims read in light of the specification, reasonably apprise those skills in the art both in utilization and scope of the invention, and if the language is as precise as the subject matter permits, the courts can demand no more." Id. (See North American Vaccine Inc. v. American Cyanamide Co., 7 F.3d 1571, 28 U.S.P.Q.2d 1333, 1339 (Fed. Cir. 1993)). Moreover, it is against the policy of the patent statute to bar patent protection for inventions that are incapable of precise definition. Georgia-Pacific at 136. With respect to the above-mentioned terms, the claims are as precise as the subject matter of the invention permits. Therefore, Applicants respectfully request reconsideration of the claims.

Claims 11, 15, 19, 24, 28 and 32 stand rejected for the phrase "capable of expressing" as indefinite because it does not state a positive feature of the claimed invention. Applicants respectfully traverse this rejection. However in order to expedite prosecution, Applicants have amended claims 11, 15, 19, 24, 28 and 32 by deleting the phrase "capable of expressing" and amending the claims to read --is expressing-- thereby stating a positive feature of the claimed invention as suggested by the Examiner. Applicants respectfully submit these claims are now in condition for allowance.

Claims 16 and 29 stand rejected as indefinite because a hybrid maize plant is not produced by a backcrossing technique. Applicants respectfully traverse this rejection. The specification specifically says "recurrent selection breeding, backcrossing for example, can be used to improve inbred lines in a hybrid which is made using those inbreds. Backcrossing can be used to transfer a specific desirable trait from one inbred or source to an inbred that lacks that trait" (page 3, specification). In addition, Applicants assert that it is well known to one ordinarily skilled in the art that backcrossing is a process of mating of a hybrid to one of its parents (Walter R. Fehr, ed., Principals of Cultivar Development, Vol. 1, pages 360-380, 1987). Therefore Applicants respectfully submit claims 16 and 29 are definite as taught by the specification.

Claim 21 stands indefinite because the plant of claim 20 is not male sterile. Applicants have now amended claim 21 to read --further comprises a genetic factor conferring male sterility--, as suggested by the Examiner, thereby obviating this rejection.

In light of the above remarks, Applicants submit that claims 1-32 clearly define and distinctly claim the subject matter Applicants regard as the invention. Applicants respectfully request reconsideration and withdrawal of the rejections under 35 U.S.C. § 112, second paragraph.

Rejections Under 35 U.S.C. § 112, First Paragraph

Claims 11, 12, 15, 16, 19, 24, 25, 28, 29 and 32 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The Examiner states the claimed invention lacks written description under current written description guidelines. The Examiner states the claims are drawn to corn progeny plants and transgenic corn plants having undisclosed identifying characteristics whereby only the characteristics of the deposited maize line X1069G are known. The Examiner further states the effect of transgenes on the physiological and morphological characteristic of a transgenic X1069G maize plant or progeny thereof, is not sufficiently described whereby one of skill in the art could recognize the claimed maize plant. The Examiner states that while claims 11, 15, 19, 24, 28 and 32 set forth at least two X1069G traits, because the terms used to described the traits are relative terms, lacking a comparative basis, these traits do not adequately define or distinguish X1069G progeny maize plants.

Applicants respectfully traverse this rejection. Applicants have amended claims 11, 15, 19, 24, 28 and 32 by adding the threshold, having 50% of the ancestral alleles, that limits the variation permitted among the genus, as well as an assayable function, capable of expressing at least a combination of two traits of X1069G. There is literal support for the amended claims found in the specification on page 3 and beginning on page 32 of the instant specification. Plant breeding techniques known in the art and used in the maize plant breeding program include, but are not limited to the following: recurrent selection backcrossing, pedigree breeding, restriction length polymorphism enhanced selection, genetic marker enhanced selection and transformation. With the amendments to the above-stated claims, Applicants have identified a transgenic X1069G plant (claim 12), a X1069G plant further comprising genes transferred by backcrossing

(claim 14), or a maize plant wherein at least one ancestor is maize variety X1069G (claim 15) by defining a particular threshold that limits variation and reciting a functional test to identify such plants. In addition, Applicants have drafted new claims 33-41 which Applicants believe come within the purview of the written description requirement and do not add new matter. Under the written description requirement, Applicants should be allowed to claim the progeny of a cross of maize plants crossed with X1069G with phenotypic characteristics since distinguishing identifying characteristics in the chemical and biotechnological arts, dealing with DNA, are those such as: partial structure, physical and/or chemical properties, functional characteristics, known or disclosed correlation between structure and function, method of making, and combinations of the above. In plants, these identifying characteristics are those detectable in the phenotype which are manifested through gene expression. Claims to a particular species of invention are adequately described if the disclosure of relevant identifying characteristics are present in the application. Again, one of ordinary skill in the art is reasonably apprised in knowing that a plant crossed with X1069G will result in a plant having half of the genetic contribution of X1069G. A further limitation set by Applicants is that the plants must be capable of expressing a combination of at least two phenotypic characteristics of X1069G.

Further, Applicants assert the specification supplies an extensive definition and description of 'transgene' and transgenes of interest. (See generally pages 48-56 and pages 49-56 for an extensive list of potential transgenes.) Applicants also note, a person having skill in the art could insert a DNA gene into a selected maize plant. Applicants have defined transgenes in the present application in the paragraph that spans pages 44-45 as follows:

> With the advent of molecular biological techniques that have allowed the isolation and characterization of genes that encode specific protein products, scientists in the field of plant biology developed a strong interest in *engineering the genome of plants to contain and express foreign genes, or additional genes* (perhaps driven by different promoters) in order to alter the traits of a plant in a specific manner. *Such foreign, additional and/or modified genes are referred to herein collectively as "transgenes"*. Over the last fifteen to twenty years several methods for producing transgenic plants have been developed, and *the present invention, in particular embodiments, also relates to transgenic versions of the claimed hybrid X1069G.*

(emphasis added) The present application clearly describes and defines a transgene to be a gene transferred into a plant wherein the product of that gene is expressed. This expression will confer

a new or improved trait into that plant. However, this gene is but a tiny fraction of the entire genome. In other words, the plant of claim 12 is distinguishable from the prior art plants just as is hybrid X1069G without the transgenes. Further, the plant of claim 12 also contains a trait(s) that is either improved or additional to the traits of the maize plant of claim 2. The X1069G-transgene plant still expresses the unique combination of traits of X1069G without the transgenes with the exception of the traits expressed by the transgenes. The trivial modifications introduced by the transgenes to the unique invention of X1069G are clearly supported and described in the present application.

In addition, Applicants respectfully submit that "[t]he test for definiteness is whether one skilled in the art would understand the bounds of the claim when read in light of the specification. . . . If the claims read in light of the specification reasonably apprise those skilled in the art of the scope of the invention, § 112 demands no more. . . . The degree of precision necessary for adequate claims is a function of the nature of the subject matter." Miles Laboratories, Inc. v. Shandon Inc., 997 F.2d 870 (Fed. Cir. 1993).

Claims 13, 14, 17, 18, 26, 27, 30 and 31 stand rejected as containing subject matter which is not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The Examiner states the Applicants have failed to adequately describe the maize plant at claims 12, 16, 25 and 29 and the methods for developing a maize plant in a maize plant breeding of the instant claims are not enabled.

Applicants respectfully traverse this rejection and submits that the claims have now been amended to properly be drawn from a method thereby obviating this rejection. In addition, Applicants direct the Examiner to the detailed assertions supra, whereby Applicants disclose how and where the specification has adequately described the maize plants of claims 12, 16, 25 and 29.

In light of the above remarks, Applicants submit that claims 1-32 clearly describe and distinctly claim the subject matter Applicants regard as the invention. Applicants respectfully request reconsideration and withdrawal of the rejections under 35 U.S.C. § 112, first paragraph.

Issues Under 35 U.S.C. § 102/103

Claims 11, 15-19, 24, 28, 29-31 and 32 stand rejected under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Fullerton (U.S. Patent 6,169,234). The Examiner states that Fullerton discloses "a hybrid maize plant designated 36B08, which Applicants admit is similar to the hybrid maize plant of the instant invention". The Examiner further states that 36B08 hybrid maize plant inherently discloses such relative traits as "good test weight", "moderate resistance to Gray Leaf Spot" and "good root lodging resistance". The Examiner also states that the X1069G of the instant invention shares a common parent with the 36B08 maize hybrid of Fullerton, that being the proprietary inbred maize line GE515721. The Examiner concludes stating that the claimed invention is *prima facie* obvious as a whole to one of ordinary skill in the art at the time it was made, if not anticipated by Fullerton.

Applicants respectfully traverse this rejection and requests reconsideration of claims 1-32. The Applicant would like to point out that the inventions X1069G and 36B08 are not the same inventions. Nor are their differences minor morphological variations. Applicants submit that the claimed plant cannot be rendered obvious as it possesses a unique combination of traits which confers a unique combination of genetics. Moreover, Applicants claim a method of making a plant which did not previously exist. Pursuant to the recent Federal Circuit decision, Elan Pharmaceuticals, Inc. v. Mayo Foundation for Medical Education & Research, No. 00-1467 (Fed. Cir. Aug. 30, 2002), "a novel patented product is not "anticipated" if it did not previously exist." Id. This is the case whether or not the process for making the new product is generally known. Id. The invention X1069G has not previously existed as it is the result of the crossing the two maize inbred lines GE535769 and GE515721.

Furthermore, when looking at the tables of both inventions, hybrids created using X1069G as one of the parents are clearly not anticipated by hybrids made using 36B08 as one of the parents. The inventions X1069G and 36B08 differ for various traits that are not minor. For example, X1069G exhibits a superior resistance to Fusarium Stalk Rot when compared with 36B08. As reported in Table 1, X1069G has a resistance of 5 (page 20). As reported in Table 1 of 6,169,234 Patent, 36B08 exhibits no teaching of resistance.

Another example, as reported in Table 2, X1069G has a Staygreen of 4 (page 20). As reported in Table 1 of the 6,169,234 Patent, 36B08 demonstrates a score of 6. A third example of the differences is that X1069G exhibits a superior resistance to Eyespot than 36B08. As reported in Table 1, X1069G has a resistance of 5. As reported in Table 1, 36B08 has a resistance of 4.

Other traits which differ between the two inventions include: fresh husk color (X1069G dark green, 36B08 light green), length of ear node leaf (X1069G 98.3, 36B08 86.8), and Anthocyanin of Brace Roots (X1069G faint, 36B08 absent).

The aforementioned examples all illustrate that there are large differences between X1069G and 36B08. The examples listed are not exhaustive but they do give ample evidence that the inventions are not the same. Furthermore, when looking at the tables of both inventions, hybrids created using X1069G as one of the parents are clearly not anticipated by hybrids made using 36B08 as one of the parents.

Applicants further submit that the claims do not simply recite traits, but instead recites these specific traits only to the extent that they are "X1069G" traits; thereby being derived from the seed/germplasm of X1069G. Note, variety with respect to agricultural variety, can be defined as a group of similar plants that by structural features and performance can be identified from other varieties within the same species. When looking at maize plants it would be possible for one ordinarily skilled in the art to find many traits that are similar between varieties such as the disease resistance or growth habit. Nonetheless, the claim also recites that the claimed plant must have X1069G as an ancestor further indicating that these traits must originate from the X1069G plant not 36B08. In response to the Examiner's contention that one could not distinguish the claimed plant from the prior art which shows each of these traits, Applicants submit that one can easily tell by reference to the plants breeding history, which can be confirmed by its molecular profile whether the plant did indeed have plant X1069G as an ancestor and expressed two or more "X1069G" traits. Further, any phenotypic trait that is expressed is a result of a combination of all of the genetic material present in the plant, and X1069G will have its own unique genetic background that will give rise to the claimed plant and this profile along with its combination with other plants will result in a unique combined genetic profile that is the product claimed.

Furthermore, there is no expectation of success that the crossing of the Hybrid 36B08 with some yet to be identified plant would yield a plant with two of the traits enumerated in the claimed invention and at least 50% of its ancestral alleles from X1069G because that particular plant did not begin with the claimed seed X1069G which is essential. Applicants assert that it is not the phenotypic characteristics alone that are claimed and taught in the instant invention. It is a combination of physiological and morphological characteristics, as claimed, which make the present Hybrid non-obvious and not anticipated over Fullerton. Further, In re Thorpe, states that "a product by process claim may be properly rejected over prior art teaching the same product produced by a different process", as noted by the Examiner. 227 U.S.P.Q. 964, 966 (Fed. Cir. 1985). However, Applicants submit that this is not the same product physiologically or morphologically as the cited prior art as can be evidenced by one skilled in the art through analysis of the data tables in each. In addition, it is impermissible to use hindsight reconstruction and the benefit of Applicants' disclosure to pick among pieces which are present in the art, there must be some suggestion to make the combination and an expectation of success. In re Vaeck, 20 U.S.P.Q.2d 1434 (Fed. Cir. 1991). Further, any phenotypic trait that is expressed is the result of the genetic material present in the plant, and X1069G will have its own unique genetic background that will give rise to the claimed plant and this profile along with its combination with other plants will result in a unique combined genetic profile that is the product claimed. Thus, the present application deserves to be considered new and non-obvious compositions in their own right as products of crossing when X1069G is used as a starting material.

In light of the above, Applicants respectfully request the Examiner reconsider and withdraw the rejection to claims 1-32 under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Fullerton (U.S. Patent 6,169,234).

Issues Under 35 U.S.C. § 103

Claims 11, 15-19, 24, 28, 29-31 and 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fullerton (U.S. Patent 6,169,234). The Examiner states the "claims are drawn to a hybrid maize plant exhibiting all of the characteristics of X1069G".

Applicants respectfully traverse this rejection. When looking at a maize plant it would be possible to find many traits that are similar between varieties such as the color of flowers or growth habit. However, to say there are similarities in phenotype between two varieties is not the same as saying that the two varieties have the same morphological and physiological characteristics as a whole, or that one is an obvious variant of the other. Further, similarity in phenotype does not mean that the two varieties will perform similarly, particularly in a breeding program. As stated above, variety with respect to agricultural variety may be defined as a group of similar plants that by structural features and performance can be identified from other varieties within the same species.

Applicants submit that Hybrid 36B08 does not exhibit the same characteristics as X1069G. Applicants will illustrate how X1069G and 36B08 are different. It must be recognized that the hybrids provided by this invention are themselves unusual and unobvious results of a common process, in that they provide the unique combination of good test weight, moderate resistance to Gray Leaf Spot and good root lodging resistance (see pages 17-20, specification). Nonetheless, Hybrid X1069G deserves to be considered as a new and non-obvious composition in its own right as does its tissue culture as products of the process when X1069G is used as starting material. Applicants point out that X1069G is a unique plant hybrid which never before existed until Applicants filed the application and until its deposit of the same. While Fullerton does teach the general regeneration of maize plants from tissue culture techniques, it does not teach or suggest the use of the unique maize hybrid X1069G. As will be demonstrated below, several morphological and physiological characteristics of Hybrid X1069G are either different from or not present in 36B08.

For example, Hybrid X1069G has superior resistance to Fusarium Stalk Rot while 36B08 does not teach any resistance to the disease. The varieties are also different with respect to fresh husk color, Staygreen, length of ear node leaf, Comparative Relative Maturity Rating System for harvest moisture, and disease resistance. Differences between the two varieties are summarized in the table below:

CHARACTERISTICS	X1069G	36B08
Fresh Husk Color	Dark Green	Light Green
Staygreen	4	6
Length of ear node leaf (cm)	98.3	86.8
Comparative Relative Maturity	105	102
Disease Resistance	Resistance to Fusarium Stalk Rot	No teaching

This comparison clearly shows that 36B08 does not exhibit the characteristics of hybrid X1069G. Further, the present application clearly shows in Table 1 at pgs. 18-20 and Tables 2-4 at pgs. 23-43 that hybrid X1069G exhibits more resistance to Eyespot, higher growing degree unit of silk emergence, excellent drydown and the aforementioned characteristics. This unique and unobvious combination of traits makes hybrid X1069G particularly well suited to the Central Corn Belt, Northwest, Northcentral, Northeastern and Western regions of the United States.

In light of the above, Applicants respectfully request the Examiner reconsider and withdraw the rejection to claims 1-32 under 35 U.S.C. § 103(a).

Applicants acknowledge that claims 1-10, 12-14, 20-23 and 25-27 are free of the prior art because the claims neither suggest nor teach the X1069G hybrid maize plant or a maize plant having all of the morphological and physiological characteristics of the X1069G hybrid maize plant of the instant claims or methods of use. This clearly indicates that the hybrid X1069G as a whole is considered distinguishable from the prior art for the purposes of novelty and non-obviousness. In any event, the deposit of a representative seed of Hybrid X1069G should satisfy the description requirement. In light of the above, Applicants respectfully submit the above rejections are clearly improper and request reconsideration and withdrawal of the rejections.

Conclusion

In conclusion, Applicants submit in light of the above amendments and remarks, the claims as amended are in a condition for allowance, and reconsideration is respectfully requested.

No additional fees or extensions of time are believed to be due in connection with this amendment; however, consider this a request for any extension inadvertently omitted, and charge any additional fees to Deposit Account No. 26-0084.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**Version with markings to show changes made.**"

Reconsideration and allowance is respectfully requested.

Respectfully submitted,

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- pw/LA -

Application No. 09/759,805

AMENDMENT — VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Specification

The paragraph beginning at page 44, line 32 has been amended as follows:

With the advent of molecular biological techniques that have allowed the isolation and characterization of genes that encode specific protein products, scientists in the field of plant biology developed a strong interest in engineering the genome of plants to contain and express foreign genes, or additional, or [modifed] modified versions of native or endogenous genes (perhaps driven by different promoters) in order to alter the traits of a plant in a specific manner. Such foreign, additional and/or modified genes are referred to herein collectively as "transgenes". Over the last fifteen to twenty years several methods for producing transgenic plants have been developed, and the present invention, in particular embodiments, also relates to transgenic versions of the claimed hybrid maize line X1069G.

In the Claims

Please amend claims 5-6, 8, 10-12, 14-16, 18, 19, 21, 23-25, 27-29 and 31-32 as follows:

5. (Amended)

A tissue culture of regenerable cells of a hybrid maize plant X1069G, representative seed of said hybrid maize plant X1069G having been deposited under ATCC accession number _____[, wherein the tissue regenerates plants capable of expressing all the morphological and physiological characteristics of said hybrid maize plant X1069G].

6. (Amended)

[A] The tissue culture according to claim 5, the cells or protoplasts of said cells having been isolated from a tissue [being from a tissue] selected from the group consisting of leaves, pollen, embryos, roots, root tips, anthers, silks, flowers, kernels, ears, cobs, husks, and stalks.

8. (Amended)

The maize plant of claim 2 wherein said plant [is male sterile] further comprises a genetic factor conferring male sterility.

10. (Amended)

The [maize plant breeding program] method of claim 9 wherein plant breeding techniques are selected from the group consisting of: recurrent selection, backcrossing, pedigree breeding, restriction fragment length polymorphism enhanced selection, genetic marker enhanced selection, and transformation.

11. (Amended)

A maize plant, or its parts, wherein at least one ancestor of said maize plant is the maize plant, or its parts, of claim 2, [said maize plant capable of] wherein said maize plant has derived at least 50% of its ancestral alleles from X1069G and is expressing a combination of at least two X1069G traits selected from the group consisting of: excellent yield potential, good stalk lodging resistance, good root lodging resistance, good early growth, good stay green, good test weight, very good dry down, very good ear retention, very good husk cover, dependable drought stress tolerance, moderate resistance to Gray Leaf Spot, moderate resistance to Northern Leaf Blight, moderate resistance to Eye Spot, moderate resistance to Fusarium Ear Rot, moderate resistance to Gibberella Ear Rot, moderate resistance to Common Rust, excellent resistance to head smut, moderate resistance to European Corn Borer first and second generation, suited to the Central Corn Belt, Northwest, Northcentral, Northeastern, and Western regions of the United States, and a relative maturity of approximately 105 (106 for physiological maturity) based on the Comparative Relative Maturity Rating System for harvest moisture of grain.

12. (Amended)

[A] The hybrid maize plant according to claim 2, wherein the genetic material of said plant contains one or more transgenes.

14. (Amended)

The [maize plant breeding program] method of claim 13 wherein plant breeding techniques are selected from the group consisting of: recurrent selection, backcrossing, pedigree breeding, restriction fragment length polymorphism enhanced selection, genetic marker enhanced selection, and transformation.

15. (Amended)

A maize plant, or its parts, wherein at least one ancestor of said maize plant is the maize plant, or its parts, of claim 12, [said maize plant capable of] wherein said maize plant has derived at least 50% of its ancestral alleles from X1069G and is expressing a combination of at least two X1069G traits selected from the group consisting of: excellent yield potential, good stalk lodging resistance, good root lodging resistance, good early growth, good stay green, good test weight, very good dry down, very good ear retention, very good husk cover, dependable drought stress tolerance, moderate resistance to Gray Leaf Spot, moderate resistance to Northern Leaf Blight, moderate resistance to Eye Spot, moderate resistance to Fusarium Ear Rot, moderate resistance to Gibberella Ear Rot, moderate resistance to Common Rust, excellent resistance to head smut, moderate resistance to European Corn Borer first and second generation, suited to the Central Corn Belt, Northwest, Northcentral, Northeastern, and Western regions of the United States, and a relative maturity of approximately 105 (106 for physiological maturity) based on the Comparative Relative Maturity Rating System for harvest moisture of grain.

16. (Amended)

[A] The hybrid maize plant according to claim 2, wherein the genetic material of said plant contains one or more genes transferred by backcrossing.

18. (Amended)

The [maize plant breeding program] method of claim 17 wherein plant breeding techniques are selected from the group consisting of: recurrent selection, backcrossing, pedigree breeding, restriction fragment length polymorphism enhanced selection, genetic marker enhanced selection, and transformation.

19. (Amended)

A maize plant, or its parts, wherein at least one ancestor of said maize plant is the maize plant, or its parts, of claim 16, [said maize plant capable of] wherein said maize plant has derived at least 50% of its ancestral alleles from X1069G and is expressing a combination of at least two X1069G traits selected from the group consisting of: excellent yield potential, good stalk lodging resistance, good root lodging resistance, good early growth, good stay green, good test weight, very good dry down, very good ear retention, very good husk cover, dependable drought stress tolerance, moderate resistance to Gray Leaf Spot, moderate resistance to Northern Leaf Blight, moderate resistance to Eye Spot, moderate resistance to Fusarium Ear Rot, moderate resistance to Gibberella Ear Rot, moderate resistance to Common Rust, excellent resistance to head smut, moderate resistance to European Corn Borer first and second generation, suited to the Central Corn Belt, Northwest, Northcentral, Northeastern, and Western regions of the United States, and a relative maturity of approximately 105 (106 for physiological maturity) based on the Comparative Relative Maturity Rating System for harvest moisture of grain.

21. (Amended)

The maize plant of claim 20 wherein said maize plant [is male sterile] further comprises a genetic factor conferring male sterility.

23. (Amended)

The [maize plant breeding program] method of claim 22 wherein plant breeding techniques are selected from the group consisting of: recurrent selection, backcrossing, pedigree breeding, restriction fragment length polymorphism enhanced selection, genetic marker enhanced selection, and transformation.

24. (Amended)

A maize plant, or its parts, wherein at least one ancestor of said maize plant is the maize plant, or its parts, of claim 20, [said maize plant capable of] wherein said maize plant has derived at least 50% of its ancestral alleles from X1069G and is expressing a combination of at least two

X1069G traits selected from the group consisting of: excellent yield potential, good stalk lodging resistance, good root lodging resistance, good early growth, good stay green, good test weight, very good dry down, very good ear retention, very good husk cover, dependable drought stress tolerance, moderate resistance to Gray Leaf Spot, moderate resistance to Northern Leaf Blight, moderate resistance to Eye Spot, moderate resistance to Fusarium Ear Rot, moderate resistance to Gibberella Ear Rot, moderate resistance to Common Rust, excellent resistance to head smut, moderate resistance to European Corn Borer first and second generation, suited to the Central Corn Belt, Northwest, Northcentral, Northeastern, and Western regions of the United States, and a relative maturity of approximately 105 (106 for physiological maturity) based on the Comparative Relative Maturity Rating System for harvest moisture of grain.

25. (Amended)

[A] The hybrid maize plant according to claim 20, wherein the genetic material of said plant contains one or more transgenes.

27. (Amended)

The [maize plant breeding program] method of claim 26 wherein plant breeding techniques are selected from the group consisting of: recurrent selection, backcrossing, pedigree breeding, restriction fragment length polymorphism enhanced selection, genetic marker enhanced selection, and transformation.

28. (Amended)

A maize plant, or its parts, wherein at least one ancestor of said maize plant is the maize plant, or its parts, of claim 25, [said maize plant capable of] wherein said maize plant has derived at least 50% of its ancestral alleles from X1069G and is expressing a combination of at least two X1069G traits selected from the group consisting of: excellent yield potential, good stalk lodging resistance, good root lodging resistance, good early growth, good stay green, good test weight, very good dry down, very good ear retention, very good husk cover, dependable drought stress tolerance, moderate resistance to Gray Leaf Spot, moderate resistance to Northern Leaf Blight, moderate resistance to Eye Spot, moderate resistance to Fusarium Ear Rot, moderate resistance

to Gibberella Ear Rot, moderate resistance to Common Rust, excellent resistance to head smut, moderate resistance to European Corn Borer first and second generation, suited to the Central Corn Belt, Northwest, Northcentral, Northeastern, and Western regions of the United States, and a relative maturity of approximately 105 (106 for physiological maturity) based on the Comparative Relative Maturity Rating System for harvest moisture of grain.

29. (Amended)

[A] The hybrid maize plant according to claim 20, wherein the genetic material of said plant contains one or more genes transferred by backcrossing.

31. (Amended)

The [maize plant breeding program] method of claim 30 wherein plant breeding techniques are selected from the group consisting of: recurrent selection, backcrossing, pedigree breeding, restriction fragment length polymorphism enhanced selection, genetic marker enhanced selection, and transformation.

32. (Amended)

A maize plant, or its parts, wherein at least one ancestor of said maize plant is the maize plant, or its parts, of claim 29, [said maize plant capable of] wherein said maize plant has derived at least 50% of its ancestral alleles from X1069G and is expressing a combination of at least two X1069G traits selected from the group consisting of: excellent yield potential, good stalk lodging resistance, good root lodging resistance, good early growth, good stay green, good test weight, very good dry down, very good ear retention, very good husk cover, dependable drought stress tolerance, moderate resistance to Gray Leaf Spot, moderate resistance to Northern Leaf Blight, moderate resistance to Eye Spot, moderate resistance to Fusarium Ear Rot, moderate resistance to Gibberella Ear Rot, moderate resistance to Common Rust, excellent resistance to head smut, moderate resistance to European Corn Borer first and second generation, suited to the Central Corn Belt, Northwest, Northcentral, Northeastern, and Western regions of the United States, and a relative maturity of approximately 105 (106 for physiological maturity) based on the Comparative Relative Maturity Rating System for harvest moisture of grain.

Please add new claims 33 – 41 as follows:

33. (New)

A method of making a hybrid maize plant designated X1069G comprising:

crossing an inbred maize plant GE535769, deposited as _____ with a second inbred maize plant GE515721, deposited as _____; and

developing from the cross a hybrid maize plant representative seed of which having been deposited under ATCC Accession Number _____.

34. (New)

A method of making an inbred maize plant comprising:

obtaining the plant of claim 2 and

applying double haploid methods to obtain a plant that is homozygous at essentially every locus, said plant having received all of its alleles from maize hybrid plant X1069G.

35. (New)

A method for producing an X1069G progeny maize plant comprising:

(a) growing the plant of claim 2, and obtaining self or sib pollinated seed therefrom; and

(b) producing successive filial generations to obtain a X1069G progeny maize plant.

36. (New)

A maize plant produced by the method of claim 35, said maize plant having received all of its alleles from hybrid maize plant X1069G.

37. (New)

The maize plant of claim 36 wherein said maize plant comprises 2 or more X1069G characteristics described in Table 1 or 2.

38. (New)

A method for producing a population of X1069G progeny maize plants comprising:

(a) obtaining a first generation progeny maize seed produced by crossing the maize plant of claim 2 with a second maize plant;

(b) growing said first generation progeny maize seed to produce F_1 generation maize plants and obtaining self-pollinated seed from said F_1 generation maize plants; and

(c) repeating the steps of growing and harvesting successive filial generations to obtain a population of X1069G progeny maize plants.

39. (New)

The population of X1069G progeny hybrid maize plants produced by the method of claim 38, said population, on average, deriving at least 50% of its ancestral alleles from X1069G.

40. (New)

A X1069G maize plant selected from the population of X1069G progeny hybrid maize plants produced by the method of claim 38, said maize plant deriving at least 50% of its ancestral alleles from X1069G.

41. (New)

The method of claim 38, further comprising applying double haploid methods to said F_1 generation maize plant or to a successive filial generation thereof.